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(54) Title: A PROCESS FOR THE MANUFACTURE OF CEFPODOXIME PROXETIL

$$H_2N$$
 $N$ 
 $OCH_3$ 
 $OCH_3$ 
 $OCH_3$ 
 $OCH_3$ 
 $OCH_3$ 

$$\begin{array}{c|c} H & H \\ \hline \\ H_2N & OCH_3 \end{array} \bullet CH_3SO_3H \\ \hline \\ OCH_3 & OCH_3 \end{array}$$

(57) Abstract: A process for obtaining cefpodoxime proxetil of formula (I), of high purity conforming to pharmacopoeial specifications is disclosed. The process comprises addition of a solution of methanesulfonic acid in water to a solution of impure cefpodoxime proxetil of formula (I) in an organic solvent to form the corresponding cefpodoxime proxetil methanesulfonate of formula (II¹), followed by addition of a co-solvent and separation of the aqueous phase containing cefpodoxime proxetil methanesulfonate of formula (II¹) having a diastereomeric ratio of (R/R+S) between 0.5 to 0.6 and subsequent neutralization of the methaneulfonate salt (II¹) with a base to give cefpodoxime proxetil (I) free of impurities and having a diastereomeric ratio of (R/R+S) between 0.5 to 0.6, or, addition of impure cefpodoxime proxetil of formula (II¹) to a solution of methanesulfonic acid in water to form the corresponding solution of cefpodoxime proxetil methanesulfonate of formula (II¹) in water, followed by sequential addition of a first organic solvent and a co-solvent and separation of the aqueous phase containing cefpodoxime proxetil methanesulfonate of formula (II¹) having a diastereomeric ratio of (R/R+S) between 0.5 to 0.6 and subsequent neutralization of the methaneulfonate salt (II¹) with a base to give cefpodoxime proxetil (I) free of impurities and having a diastereomeric ratio of (R/R+S) between 0.5 to 0.6.





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